

REMARKS/ARGUMENTS

Favorable reconsideration of this application, in view of the present amendment and in light of the following discussion, is respectfully requested.

Claims 2-11, 13, and 14 are pending in the present application; Claims 4, 6, 7, 13, and 14 having been amended. The amendments to Claims 4, 6, 7, 13, and 14 find support in original Claim 4. Thus, it is respectfully submitted that no new matter is added.

Furthermore, Applicant respectfully submits that the present amendment raises no new issues, and respectfully requests that the present amendment be entered.

In the outstanding Office Action, Claims 6 and 7 were rejected under 35 U.S.C. § 112, second paragraph, as indefinite; Claims 6 and 7 were objected to; Claims 2-8, 10, 11, 13, and 14 were rejected under 35 U.S.C. § 102(e) as anticipated by Ogawa et al. (European Patent Application No. 1176586, hereinafter "Ogawa"); Claims 2-8, 10, 11, 13, and 14 were rejected under 35 U.S.C. § 102(e) as anticipated by Ohsawa (U.S. Patent No. 6,937,550, hereinafter "Ohsawa '550'"); Claims 2-11, 13, and 14 were rejected under 35 U.S.C. § 103(a) as unpatentable over Yamamoto et al. (U.S. Patent No. 6,656,560, hereinafter "Yamamoto") in view of Ogawa or Muramatsu et al. (U.S. Patent No. 6,741,548, hereinafter "Muramatsu"); Claims 2-11, 13, and 14 were rejected under 35 U.S.C. § 103(a) as unpatentable over Ohsawa et al. (U.S. Patent No. 6,773,781, hereinafter "Ohsawa '781'") in view of Ogawa or Muramatsu; Claims 2-11, 13, and 14 were rejected under 35 U.S.C. § 103(a) as unpatentable over Tsumagari et al. (U.S. Patent No. 6,360,057, hereinafter "Tsumagari") in view of Ogawa or Muramatsu; Claims 2-8, 10, 11, 13, and 14 were rejected under 35 U.S.C. § 102(b) as anticipated by Ohsawa (U.S. Patent No. 6,934,231, hereinafter "Ohsawa '231'"); and Claims 2-8, 10, 11, 13, and 14 were rejected under 35 U.S.C. § 102(b) as anticipated by Nakamura et al. (WO 00/79525, hereinafter "Nakamura").

With regard to the rejection of Claims 6 and 7 under 35 U.S.C. § 112, second paragraph, this rejection is respectfully traversed.

Claim 6 is amended to recite “wherein invalid information is written on the non-recording zone on the *second* recording layer.” The invalid information recited in Claim 13 is included in the “pit array” which is located on the “*first* recording layer.” Thus, it is respectfully submitted that the “invalid information” recited in amended Claim 6 clearly refers to different “invalid information” than that recited in Claim 13.

Claim 7 is amended to depend directly on Claim 13. Thus, it is respectfully submitted that the “invalid information” recited in amended Claim 7 clearly refers to the same “invalid information” as that recited in Claim 13.

Accordingly, it is respectfully submitted that Claims 6 and 7 comply with all requirements under 35 U.S.C. § 112, second paragraph. Thus, it is respectfully requested that the rejection of Claims 6 and 7 under 35 U.S.C. § 112, second paragraph, be withdrawn.

In response to the objection to Claims 6 and 7 under 37 C.F.R. § 1.75(c), this objection is respectfully traversed. As discussed above, the “invalid information” recited in amended Claim 6 clearly refers to different “invalid information” than that recited in Claim 13. Additionally, as discussed above, the “invalid information” recited in Claim 13 is included in the “pit array” which is formed on a non-erasable information zone. The outstanding Office Action, in section 4 on page 3, takes the position that the pit array is formed in a non-recording zone. However, it is respectfully submitted that Claim 13 does not recite that the pit array is formed in a non-recording zone. Rather, Claim 13 describes the pit array being in a non-erasable information zone, which is different than a non-recording zone. Additionally, Claim 7 is amended to depend directly on Claim 13. Thus, it is respectfully submitted that Claim 13 does not preclude the “invalid information” from including “at least one of test recording, synchronous pattern, and buffering effect,” as recited in amended Claim

7. Therefore, it is respectfully requested that the outstanding objection to Claims 6 and 7 be withdrawn.

Turning now to the rejection based on art, Applicant respectfully submits that the amendment to Claim 13 overcomes all grounds of rejection. Amended Claim 13 recites:

A multi-layered optical disk having an inner peripheral side and an outer peripheral side, to which information is recorded with a focused light beam, comprising:

a transparent substrate; and

a first recording layer and a second recording layer faced to each other and supported by the transparent substrate,

the first recording layer having a non-erasable information zone on which a pit array of non-erasable information is formed and a first recordable zone on which a first guide groove is formed and on which a first recording mark array is formed with an irradiation of the focused light beam passing through the transparent substrate, and the second recording layer having a non-recording zone on which information data is prevented from being recorded and a second recordable zone on which a second guide groove is formed and on which a second recording mark array is formed with the irradiation of the focused light beam, wherein

the pit array includes a first pit array of invalid information and a second pit array of valid information which are arranged between the inner peripheral side and the first recordable zone,

the non-recording zone is so arranged at the inner peripheral side as to face the non-erasable information zone and includes an illumination region on which a beam spot is formed by the light beam focused on the non-erasable information zone, and

the second recordable zone is arranged between the non-recording zone and the outer peripheral side.

The cited references do not disclose or suggest every feature recited in amended Claim 13.

Additionally, although directed to an alternative embodiment, Claim 14 recites features similar to those discussed above. Thus, the following discussion of Claim 13 also applies to Claim 14.

In response to the outstanding rejections of Claims 2-8, 10, 11, 13, and 14 under 35 U.S.C. § 102(b), the Official Action concedes that both Ohsawa '231 and Nakamura require modification to anticipate the claimed invention.<sup>1</sup> Thus, neither Ohsawa '231 nor Nakamura teach every aspect of the claimed invention either explicitly or implicitly. Therefore, these rejections are improper under 35 U.S.C. § 102(b) and should be withdrawn.

Turning now to the rejection of Claims 2-8, 10, 11, 13, and 14 under 35 U.S.C. § 102(e) as anticipated by Ogawa, this rejection is respectfully traversed.

Ogawa describes an information recording medium with an index header. Specifically, Ogawa describes an optical disk including stacked recording layers of a format in which pit trains (embossed trains) and data recording sections are alternately arranged on each track of a recording area.<sup>2</sup> Additionally, Ogawa describes that in the two-layer structure, pit trains and data recording sections on one layer overlap those on the other layer, i.e., the positional relationship between circumferential pit trains (embossed trains) and data recording sections is for guarding the stored data from the influence of noise that occurs between the two layers.<sup>3</sup>

However, Ogawa does not disclose or suggest “the first recording layer having a non-erasable information zone on which a pit array of non-erasable information is formed and a first recordable zone on which a first guide groove is formed...the second recording layer having a non-recording zone on which information data is prevented from being recorded and a second recordable zone on which a second guide groove is formed” or “the non-recording zone is so arranged at the inner peripheral side as to face the non-erasable information zone,” as recited in Claim 13.

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<sup>1</sup> See the outstanding Office Action, at sections 12 and 13 on page 8.

<sup>2</sup> See Ogawa, at paragraph [0030] and in Figures 1C and 2.

<sup>3</sup> See Ogawa, at paragraph [0040].

Instead, as discussed above, Ogawa describes that the embossed area extends radially outward from the center of the disc such that the embossed area intersects each track. Additionally, Ogawa describes that the pit train on one layer overlaps the pit train on another layer. Therefore, Ogawa does not disclose or suggest the “first recording layer,” “the second recording layer,” or that “the non-recording zone is so arranged at the inner peripheral side as to face the non-erasable information zone,” as recited in amended Claim 13.

Thus, it is respectfully submitted that independent Claims 13 and 14 patentably define over Ogawa. Therefore, it is respectfully requested that the rejection of Claims 13 and 14, and all claims dependent thereon, as anticipated by Ogawa be withdrawn.

Turning now to the rejection of Claims 2-8, 10, 11, 13, and 14 under 35 U.S.C. § 102(e) as anticipated by Ohsawa '550, this rejection is respectfully traversed.

Ohsawa '550 describes an information recording medium such as an optical disk. Specifically, Ohsawa '550 describes an optical disk having embossed lead-in areas on both the first and the second layer.<sup>4</sup> The central portion of each embossed lead-in area stores valid lead-in information, and the inner peripheral portion and outer peripheral portion of the same are defined as guard track areas for invalid information.<sup>5</sup> Thus, the lead-in information stored in each embossed read-in area needs to be read.

However, Ohsawa '550 does not disclose or suggest “the first recording layer having a non-erasable information zone on which a pit array of non-erasable information is formed and a first recordable zone on which a first guide groove is formed...the second recording layer having a non-recording zone on which information data is prevented from being recorded and a second recordable zone on which a second guide groove is formed” or “the non-recording zone is so arranged at the inner peripheral side as to face the non-erasable information zone,” as recited in Claim 13.

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<sup>4</sup> See Ohsawa '550, in Figure 7.

<sup>5</sup> See Ohsawa '550, at column 7, lines 15-32.

Instead, Ohsawa '550, in column 5, lines 34 to 39, describes that a non-recording zone is an embossed area. Thus, the information recording medium described in Ohsawa '550 fails to provide the function of suppressing the influence of both layers and enhancing the reliability of reproduction, which is obtained in the invention as claimed in Claim 13.

Thus, it is respectfully submitted that Claims 13 and 14 patentably define over Ohsawa '550. Therefore, it is respectfully requested that the rejection of Claims 13 and 14, and all claims dependent thereon, as anticipated by Ohsawa '550 be withdrawn.

Turning now to the rejection of Claims 2-11, 13, and 14 under 35 U.S.C. § 103(a) as unpatentable over Yamamoto in view of Ogawa or Muramatsu, this rejection is respectfully traversed.

Yamamoto describes a multi-layer optical recording medium and method of manufacturing the same. More specifically, Yamamoto describes a two-layer optical disk including a first recording layer and a second recording layer that are stacked, and in which pit trains (embossed trains) and data recording sections are alternately arranged on each track of a recording area.<sup>6</sup> Additionally, Yamamoto describes that, in the two-layer structure, pit trains and data recording sections on one layer overlap those on the other layer, i.e., the positional relationship between circumferential pit trains (embossed trains) and data recording sections, and areas are provided on the tracks for guarding the stored data from the influence of noise that occurs between the two layers.<sup>7</sup>

However, Yamamoto fails to disclose or suggest “the first recording layer having a non-erasable information zone on which a pit array of non-erasable information is formed and a first recordable zone on which a first guide groove is formed...the second recording layer having a non-recording zone on which information data is prevented from being recorded and a second recordable zone on which a second guide groove is formed” or “the

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<sup>6</sup> See Yamamoto, at column 4, lines 55-60.

<sup>7</sup> See Yamamoto, as shown in Figure 4.

non-recording zone is so arranged at the inner peripheral side as to face the non-erasable information zone,” as recited in Claim 13.

As discussed above, Ogawa fails to disclose or suggest “the first recording layer having a non-erasable information zone on which a pit array of non-erasable information is formed and a first recordable zone on which a first guide groove is formed...the second recording layer having a non-recording zone on which information data is prevented from being recorded and a second recordable zone on which a second guide groove is formed” or “the non-recording zone is so arranged at the inner peripheral side as to face the non-erasable information zone,” as recited in Claim 13.

Turning now to Muramatsu, Muramatsu merely describes a general lead in structure. Thus, Muramatsu does not disclose or suggest “the first recording layer having a non-erasable information zone on which a pit array of non-erasable information is formed and a first recordable zone on which a first guide groove is formed...the second recording layer having a non-recording zone on which information data is prevented from being recorded and a second recordable zone on which a second guide groove is formed” or “the non-recording zone is so arranged at the inner peripheral side as to face the non-erasable information zone,” as recited in Claim 13.

Therefore, even if the combination of Yamamoto, Ogawa, and Muramatsu is assumed to be proper, the combination fails to disclose or suggest every element of the claimed invention. Specifically, the combination fails to disclose or suggest “first recording layer,” “the second recording layer,” or that “the non-recording zone is so arranged at the inner peripheral side as to face the non-erasable information zone,” as recited in amended Claim 13. Accordingly, Applicant respectfully requests that the rejection of independent Claims 13 and 14, and all claims dependent thereon, as unpatentable over Yamamoto in view of Ogawa or Muramatsu be withdrawn.

Turning now to the rejection of Claim 2-11, 13, and 14 under 35 U.S.C. § 103(a) as unpatentable over Ohsawa '781 in view of Ogawa or Muramatsu, that rejection is respectfully traversed.

Ohsawa '781 describes a multi-layer information recording medium and information recording and reproducing apparatus. Specifically, Ohsawa '781 describes a recording medium having two-layered recording layers L1, L2.

However, Ohsawa '781 fails to disclose or suggest “the first recording layer having a non-erasable information zone on which a pit array of non-erasable information is formed and a first recordable zone on which a first guide groove is formed...the second recording layer having a non-recording zone on which information data is prevented from being recorded and a second recordable zone on which a second guide groove is formed” or “the non-recording zone is so arranged at the inner peripheral side as to face the non-erasable information zone,” as recited in Claim 13. Additionally, as discussed above, neither Ogawa nor Muramatsu disclose or suggest these features. Accordingly, Applicant respectfully requests that the rejection of independent Claims 13 and 14, and all claims dependent thereon, as unpatentable over Ohsawa '781 in view of Ogawa or Muramatsu be withdrawn.

Turning now to the rejection of Claims 2-11, 13, and 14 under 35 U.S.C. § 103(a) as unpatentable over Tsumagari in view of Ogawa or Muramatsu, that rejection is respectfully traversed.

Tsumagari describes a digital video recording/playback system with an entry point processing function. Specifically, Tsumagari describes a recording medium having two-layered recording layers. Tsumagari also describes an optical disk that has information areas which include a lead-out area on the disk's outer periphery side, a lead-in area on its inner periphery side, and a data recording area between the lead-out area and lead-in area.<sup>8</sup>

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<sup>8</sup> See Tsumagari, at column 6, lines 8-19.




However, Tsumagari fails to disclose or suggest “the first recording layer having a non-erasable information zone on which a pit array of non-erasable information is formed and a first recordable zone on which a first guide groove is formed...the second recording layer having a non-recording zone on which information data is prevented from being recorded and a second recordable zone on which a second guide groove is formed” or “the non-recording zone is so arranged at the inner peripheral side as to face the non-erasable information zone,” as recited in Claim 13. Additionally, as discussed above, neither Ogawa nor Muramatsu disclose or suggest these features. Accordingly, Applicant respectfully requests that the rejection of independent Claims 13 and 14, and all claims dependent thereon, as unpatentable over Tsumagari in view of Ogawa or Muramatsu be withdrawn.

Consequently, in view of the present amendment, no further issues are believed to be outstanding in the present application, and the present application is believed to be in condition for formal allowance. A Notice of Allowance of Claims 2-11, 13, and 14 is earnestly solicited.

Respectfully submitted,

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